OC

Quality Control

120

Identify as per dwg & Stock Location: WH. 003 0.00

\*120\* Packaging

Memo

Memo

0.00

40

Packaging

NCR: Y	'es	/ No				WORK ORDER NON-	CON	NFORM	MANCE / UPDATE		DQA: QA Closed:						
A4 = = - O = =  =	<u></u>					DISPOSITION		AGAINST DEPARTMENT/PROCESS									
Part No						Rework Scrap Use-as-is Work Order Update		Skid-tube Crosstube Machining Small Fab Thermoforming Finishing Composite			-1	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other				
Root					Descri	ption of work order update	Ti	nitial	Action		Sign &						
Cause		Date	Step	Qty		or Non-conformance	Chi	ief Eng	Description		Date	Verification	QC Inspector				
oc/Data quip/Tooling Derator Material etup Other rocess upplier raining																	
						F	FAUL	T CATE	GORY				•				
Landir	ng G	ear				General					_						
	Bending Centre Not Concentric to O/S Cracks Crushed/Crimped Cuffs Heat Treat Inspection Strip in Tube Ripples in Bend Torque Waves in Extrusion Turning Sequence Wave/Twist in Tube					Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes Drawing Finish Folio		Grain Hardware Inspection Incomplete Instructions Incomplete/Unclear Maintenance Mislabeled Misread Offset Out of Calibration Out of Sequence Outside Dimensions			Ovalized Over/Under Part Incorred Part Lost/Mi Part Moved Positioned V Power Loss/	ct ssing Vrong	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other				

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

QC

Quality Control

### **01572**\*

Page 2

May-13-13 1:08:57 PM D3065-041 Accept \*N900040100\* Setup Start Item ID: **Revision 1D:** Stop Item Name: Step Leg Assembly Hi \*40\* **Start Qty: 40.00 Start Date:** 5/13/13 **Cust Item ID:** Req'd Qty: 40.00 Required Date: 5/31/13 \*40\* **Customer:** Reference: Run Start Date: **Tooling:** Date: **Approvals:** Process Plan: Stop Date: \_ Date: SPC (Y/N): QC: Tool ID Tool # Plan Reject Sequence ID/ Operation Set Up/ Accept Reject Insp. Work Center ID Qty Qty Number Stamp **Description Run Hours** Code 0.00 QC21- Final Inspection - Work Order Release 130 \*130\* MUJ 13-06-21

0.00

Memo

Pl 13-06-21

NCR: Yes /	No
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DQA: \_\_\_\_\_Date: \_\_\_\_\_

NCR: Y	es / No				WORK ORDER NON-	-CONF	UKIV	HANCE / UP	DATE	QA Closed:	Date	· ••	
					DISPOSITION			;	AGAINST DE				
Work Orde	ř:				DISPOSITION		AGAINST DEPARTMENT/PROCESS						
					Rework	7	Skid-tube Crosstube				Water Jet	Engineering	
Part N	0				Scrap		V	Machining	Small Fab	Prod. Eng. Coor.		Quality	
				Use-as-is		۲herm	oforming	Finishing	Rec/Sto	re/Packaging	Other		
NCR N	0				Work Order Update		ſ	Large Fab	Composite		Supplier		
	•												
Root				Desci	ription of work order update	Init	tial	Act	tion	Sign &			
Cause	Date	Step	Qty		or Non-conformance	Chief	f Eng	Desci	ription	Date	Verification	QC Inspector	
oc/Data													
quip/Tooling													
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Inapproved		<u> </u>											
				•		FAULT (	CATE	GORY					
Landin	g Gear			_	General				<u></u>	<b>-</b>			
	Bending				Bend	Gr	rain			Ovalized		Pressure/Forced	
	Centre N	ot Conce	ntric to (	o/s	BOM/Route	На	ardwar	re		Over/Under	tolerance	Temperature/Cure	
	Cracks				Broken/Damaged	Ins	spection	on Incomplete		Part Incorred	t _	Weld	
	Crushed/	Crimped	•		Burrs	Ins	structi	ons Incomplete/l	Jnclear	Part Lost/Mi	ssing	Wrong Stock Pulled	
[	Cuffs				Contamination	M	lainte	nance		Part Moved			
Ī	Heat Treat			Countersink	ШМ	Iislabel	led		Positioned V	Vrong	_		
	Inspectio	n Strip in	Tube		Cut Too Short	М	lisread			Power Loss/	Surge	Other	
. [	Ripples in	n Bend			Drill Holes	Of	ffset			<del>-</del> 			
Ī	Torque V	Vaves in E	Extrusio	n	Drawing	O	ut of C	alibration					
	Turning S			Γ	Finish	O	ut of S	equence					
Ī	Wave/Twist in Tube			Folio	Пог	Outside Dimensions							

May-13-13 1:08:56 PM

Work Order ID:

101572

Parent Item:

D3065-041

Parent Item Name:

Step Leg Assembly Hi

**Start Date:** 5/13/13

Required Date: 5/31/13

**Start Qty: 40.00** 

Required Qty: 40.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Status
)3065-1	-	Manufactured	No			100	Each	61.0000	1	40		2 /00 /03
Step Spacer						<b>L</b>			← <u>*</u> * # *		TJ-)1-	3 /06 /03
		L		<b>Location</b>		Loc Oty	<u>L</u>	oc Code				
				GA		61						
				7449	7	1					M	101456
				8130		R 1			<del></del>	<del>-</del> G	1	10111
				9622		39			$\alpha$		_	j
				9799	93	20					//1	
3065-3		Manufactured	No			100	Each	60.0000	1	40	<i>4</i> // \$,	3 /06 /
tep Spacer											9)	3/00/0
				Location		Loc Oty	<u>L</u>	oc Code			40	
				GA		60					11/01	4570
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				8373		12						330
		· •		8381		1					€ 1	RIDIUS
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			<b>N</b> T.	9790	J1		Each	68.0000	2		///	
3065-5		Manufactured	No			100	Eacn	08.0000	2	811	50c	3/66/i
tep Leg									~== ·= ·		/!_	
				<b>Location</b>		Loc Qty	Ī	oc Code			•	
				GA		68						•
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				732		19			- F		MI	11458
				993	40	48			S_	<u> </u>		455

~

NCR: Yes / No	
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DQA:

Date:

NCR: Ye	es / No				WORK ORDER NON-O	CONFOR	RMANCE / UP	PDATE						
									QA Closed:	Date:	:			
Work Order	r:				DISPOSITION		AGAINST DEPARTMENT/PROCESS							
Part No					Rework Scrap		Skid-tube Crosstube Machining Small Fab			Water Jet d. Eng. Coor.	Engineering Quality			
NCR No.					Use-as-is Work Order Update	The	Thermoforming Finishing  Large Fab Composite			Rec/Store/Packaging Other Supplier				
Root				Descri	ption of work order update	Initial	Ac	ction	Sign &		·			
Cause	Date	Step	Qty	(	or Non-conformance	Chief En	g Desc	cription	Date	Verification	QC Inspector			
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quip/Tooling			1 1											
perator														
/laterial														
etup														
Other .							1							
rocess														
upplier						ł								
raining											·			
Inapproved -		1	1 1											
					F	AULT CAT	EGORY							
Landin	g Gear		-		General									
· [	Bending	5			Bend	Grain			Ovalized		Pressure/Forced			
ľ	Centre	Not Conce	ntric to (	o/s 🗀	BOM/Route	Hardv	/are		Over/Under	tolerance	Temperature/Cure			
_	Cracks				Broken/Damaged	Inspec	tion Incomplete		Part Incorred	ct	Weld			
Ī	Crushed	l/Crimped			Burrs	Instru	ctions Incomplete/	/Unclear	Part Lost/Mi	ssing	Wrong Stock Pulled			
T I	Cuffs	,			Contamination	Main	tenance	_	Part Moved		· ,			
	Heat Treat			Countersink	Mislal	peled		Positioned V	Vrong					
r		on Strip in	Tube		Cut Too Short	Misre	ad ·		Power Loss/	Surge	Other			
	Ripples	•			Drill Holes	Offset								
t	<b> ' '</b> '	Waves in	Extrusion	,一	Drawing	Out o	Calibration							
<u> </u>		Sequence			Finish	$\vdash$	Sequence							
			Folio	<b> </b>	de Dimensions									

May-13-13 1:08:57 PM

Work Order ID:	101572			-				
Parent Item:	D3065-041					Start [	Date: 5/13/13	Required Date: 5/31/13
Parent Item Name:	Step Leg Assembly Hi					Start	Qty: 40.00	Required Qty: 40.00
D3065-7 Step Spacer	Manufactured	No		100	Each	57.0000	1	40 53/06/03
			Location	Loc Oty		Loc Code		
			GA	57	4			- 0
			73291	7			<del></del> -	- Klouve
			74499	1				- 0/0/43
			78666	4				- (40x)
			83738 89971	10				
			91548	19				
			97908	15				- 0 1 1
MS20470AD4-4	Purchased	No		100	Each	5,768.0000	<b>30</b> ]	200
Rivet, Universal Head								(1) 100/03
			<b>Location</b>	Loc Qty		Loc Code		
	•		GA	1				
			121652	1				_
			ST336	391				_
			116188	68				<del></del>
			118614	135				<u> </u>
			122027	188				
			ST506	5376			1)00	
			125268	5376	;		1200	<b>∠</b>

		;									DO	A:	_Date:	
NCR:	Yes	/ No	٠			WORK ORDER NON-	CO	NFORI	MANCE / UF	PDATE				
											QA Close	ed:	Date:	
Work Ordor						DISPOSITION				AGAINST D	k.			
Work Order:  Part No  NCR No.						Rework Scrap Use-as-is Work Order Update	Thern	Skid-tube Crosstube Machining Small Fab Thermoforming Finishing Composite			Wate Prod. Eng. C store/Packa Sup	Engineering Quality Other		
						' <u>L</u>			·	·	<b>-</b>			
Root					Descri	ption of work order update		Initial	Ad	ction	Sign &			
Cause		Date	Step	Qty	(	or Non-conformance	Cl	nief Eng	Desc	cription	Date	Verific	cation	QC Inspector
Doc/Data														
Equip/Tooling							1							
Operator														
Material											-			
Setup														
Other	<u> </u>		}				1							
Process	_													
Supplier							ļ							
Training 1	<u></u>	ļ												*
Unapproved	]		<u> </u>											
						<del></del>	FAU	LT CATE	GORY					
Landi	ing (	1			_	General	_	7		_	<del>-</del> 1			1
	$ldsymbol{le}}}}}}$	Bending		,	· `  _	Bend	<u> </u>	Grain		į_	Ovalized		·	Pressure/Forced
		Centre N	ot Conce	ntric to	o/s	BOM/Route	$\perp$	Hardwa			<b>-</b>	der tolerance	,	Temperature/Cure
	L	Cracks				Broken/Damaged	L	<b>⊣</b> ′	on incomplete	_	Part Inco			Weld
		Crushed/	Crimped			Burrs		-i	ions Incomplete,	/Unclear	Part Lost,	-		Wrong Stock Pulled
	$\perp$	Cuffs				Contamination		Mainte			Part Mov			. •
		Heat Trea	at			Countersink		Mislabe	eled		Positione		_	1
Inspection Strip in Tube			n Strip in	Tube	,	Cut Too Short Misread		j		Power Lo	ss/Surge		Other 🥳	

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Torque Waves in Extrusion

Drill Holes

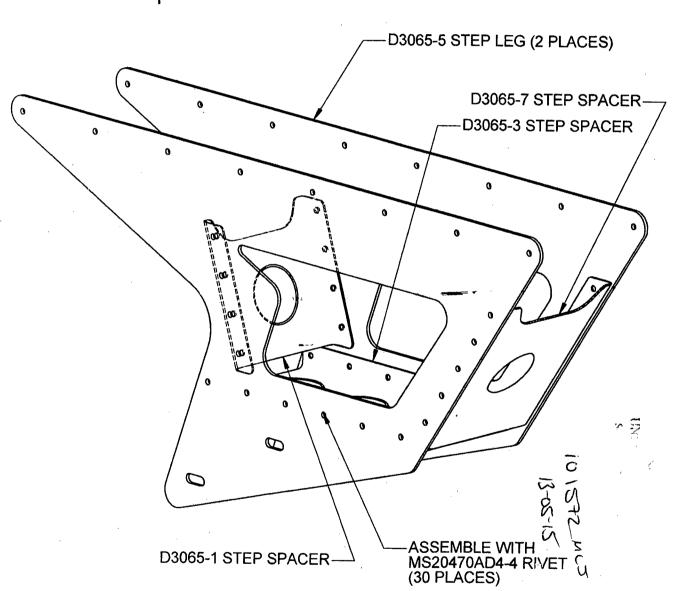
Drawing

Finish Folio



	DESIGN	4	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA					
	CHECK	ED <i>OU</i>	APPROVED	DRAWING NO.	REV. B				
		777	TOH	D3003	SHEET 1 OF 5				
	DATE	06.0	05.23	TITLE STED LEC ACCEADLY	SCALE				
_		00.0	70.20	STEP LEG ASSEMBLY	1:2				
	Α	0:	2.09.11	NEW ISSUE	,				
	В	00	6.05.23	ADD 6061-T6 MATERIAL, ADD SLOTS TO D3065-5					

# RELEASED



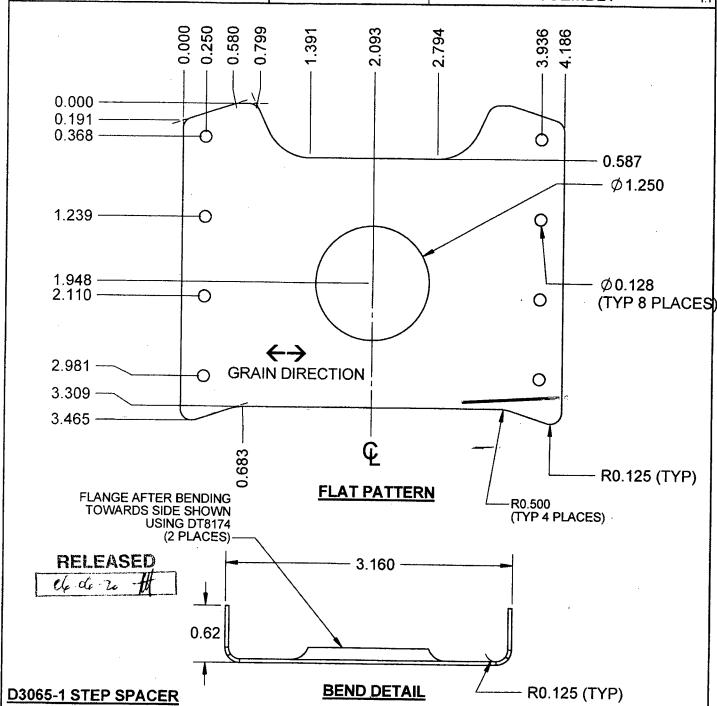
## **D3065-041 STEP LEG ASSEMBLY**

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	DESIGN //	DRAWN BY	<del></del>	DART AEROSPACE LTD						
		C.D.	HAWKESBURY, ONTARIO, CAI	NADA						
	CHECKED	APPROVED	DRAWING NO.	REV. B						
1	711		D3065	SHEET 2 OF 5						
	DATE	)E 00	TITLE	SCALE						
	06.0	05.23	STEP LEG ASSEMBLY	1:1						



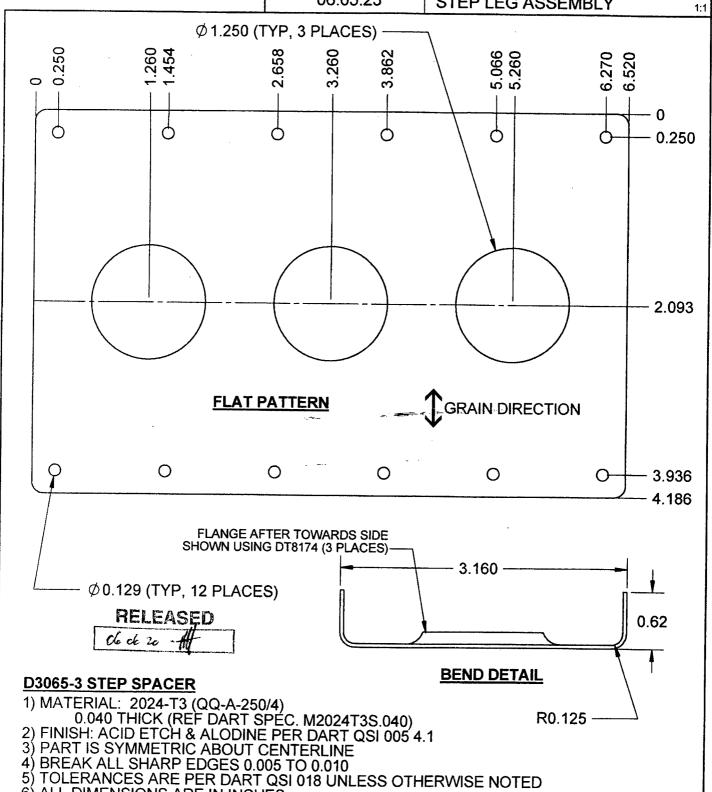
- 1) MATERIAL: 2024-T3 (QQ-A-250/4) 0.040 THICK (REF DART SPEC. M2024T3S.040)
- 2) FINISH: ACID ETCH & ALODINE PER DART QSI 005 4.1
- 3) BREAK ALL SHARP EDGES 0.005 TO 0.010 4) PART IS SYMMETRIC ABOUT CENTERLINE
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 6) ALL DIMENSIONS ARE IN INCHES

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6) ALL DIMENSIONS ARE IN INCHES

101572 DATE 06.05. 7 23 DRAWING NO. STEP F DART AEROSPACE LTD HAWKESBURY, ONFARIO, CANADA G **ASSEMBLY** SHEET 4 OF 5

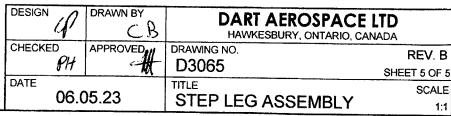
SCALE 1:3

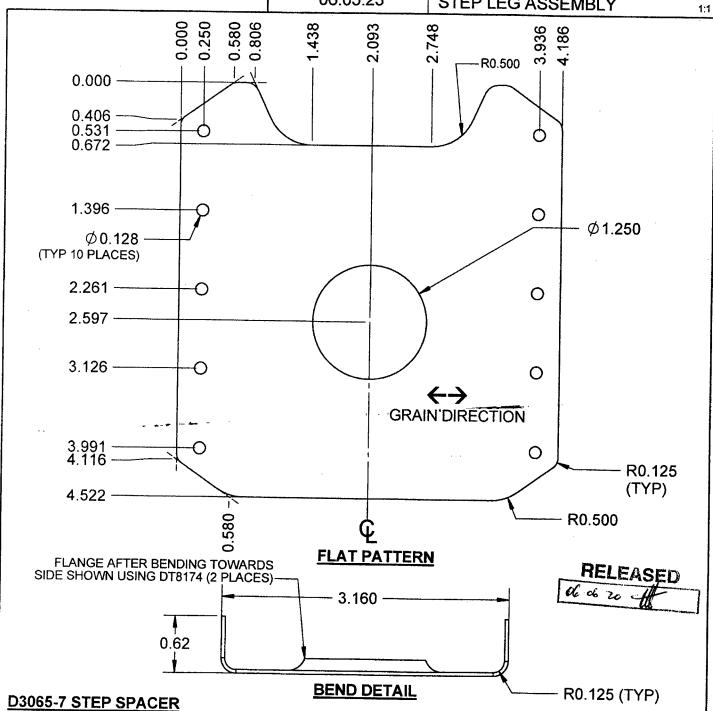
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD. AM IN 16.458 15.750 (2.250 PITCH)  $\phi$  0.128 (DRILL #30) (TYP 23 PLACES) COPYRIGHT @2002 1.640 0 BY DART AEROSPACE LTD. 0 8.325 3.484 (0.871 PITCH) 3.460 (0.865 PITCH) 0.551 SEE 0.741 **DETAIL A** 6.020 DETAIL A (2 PLACES) **D3065-5 STEP LEG** (1.205 PITCH) 1) MACHINE PER DWG FILE "D3065-5.SLDPRT"
2) MATERIAL: 6061-T6 (PER QQ-A-250/11 OR AMS 4025 OR AMS 4027) 0.080" THICK (REF DART SPEC M6061T6S.080)

5052-H32 (PER QQ-A-250/8 OR AMS 4016) 0.080 THICK (REF DART SPEC. M5052H32S.080) FINISH: ACID ETCH & ALODINE PER DART QSI 005 4.1

BREAK ALL SHARP EDGES 0.005 TO 0.010 TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN INCHES







- 1) MATERIAL: 2024-T3 (PER QQ-A-250/4) 0.040 THICK (REF DART SPEC. M2024T3S.040) 2) FINISH: ACID ETCH & ALODINE PER DART QSI 005 4.1
- 3) PART IS SYMMETRIC ABOUT CENTERLINE
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.010 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 6) ALL DIMENSIONS ARE IN INCHES

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